

## Special Issue

# The Immunology of Dengue, Chikungunya and Zika Virus: Implications for Vaccines and Vaccine Development

### Message from the Guest Editor

Dengue viruses (DENVs), Chikungunya virus (CHIKV) and Zika virus (ZIKV) are a cause of viral infections and disease in tropical and subtropical regions worldwide.

Each of these viruses is transmitted between individuals by *Aedes* species mosquitoes (notably *Ae. aegypti* and *Ae. albopictus*). Despite these risks, the availability of vaccines against DENV, CHIKV, and ZIKV, which are both safe and efficacious, is either limited or unavailable. Confounding the development and safety of vaccines is a detailed understanding of the immunological response to infection with these viruses following natural transmission via the mosquito.

Traditionally, immunological studies with DENV, CHIKV, and ZIKV have relied on needle inoculation of animal models; however, more recent studies suggest that mosquito saliva contains excipients that can perpetuate infection. Thus, a detailed understanding of the role of mosquito saliva as well as specific excipients found in mosquito saliva on the immunological response to viral infection is needed in order to fully appreciate the protective efficacy and risks of vaccination against DENV, CHIKV, and ZIKV.

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### Guest Editor

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### Deadline for manuscript submissions

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## Vaccines

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*Vaccines* (ISSN 2076-393X) has had a 6-year history of publishing peer-reviewed state of the art research that advances the knowledge of immunology in human disease protection. Immunotherapeutics, prophylactic vaccines, immunomodulators, adjuvants and the global differences in regulatory affairs are some of the highlights of the research published that have shaped global health. Our open access policy allows all researchers and interested parties to immediately scrutinize the rigorous evidence our publications have to offer. We are proud to present the work and perspectives of many to contribute to future decisions concerning human health.

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### Editor-in-Chief

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